Übungsblatt: Bit-Operationen

Legende: A , B : Eingangs-Bits
E : Ergebnis-Bit
Z : Zwischenergebnis-Bit:

AND

E := A B *and*

A	B	E
0	0	
0	1	
1	0	
1	1	

OR

E := A B *or*

A	B	E
0	0	
0	1	
1	0	
1	1	

XOR

E := A B *xor*

A	B	E
0	0	
0	1	
1	0	
1	1	

INVERT

E := A *invert*

A	E
0	
1	

INHIBIT

Z := B *invert*
E := A Z *and*

A	B	Z	E
0	0		
0	1		
1	0		
1	1		

NAND

Z := A B *and*
E := Z *invert*

A	B	Z	E
0	0		
0	1		
1	0		
1	1		

NOR

Z := A B *or*
E := Z *invert*

A	B	Z	E
0	0		
0	1		
1	0		
1	1		

XNOR

Z := A B *xor*
E := Z *invert*

A	B	Z	E
0	0		
0	1		
1	0		
1	1		

<>

E := A B *xor*

A	B	E
0	0	
0	1	
1	0	
1	1	

=

E := A B *xnor*

A	B	E
0	0	
0	1	
1	0	
1	1	

>

E := A B *inhibit*

A	B	E
0	0	
0	1	
1	0	
1	1	

<

E := B A *inhibit*

A	B	E
0	0	
0	1	
1	0	
1	1	